



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,836	10/30/2003	Italo Busi	Q77975	7215
72875	7590	12/14/2007		
SUGHRUE MION, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037			EXAMINER SOL, ANTHONY M	
			ART UNIT	PAPER NUMBER
			2619	
			NOTIFICATION DATE	DELIVERY MODE
			12/14/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com  
kghyndman@sughrue.com  
USPatDocketing@sughrue.com

# Office Action Summary

Application No.

10/695,836

Applicant(s)

BUSI ET AL.

Examiner

Anthony Sol

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7, 8, 11 and 12 is/are allowed.
- 6) ☒ Claim(s) 1 and 13-15 is/are rejected.
- 7) ☒ Claim(s) 2-6, 9 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

- Applicant's Amendment filed 9/13/2007 is acknowledged.
- Claims 1-8 have been amended.
- Claims 1-15 remain pending.

### *Claim Objections*

1. Claims 9 and 10 are objected to because of the following informalities:

For claims 9 and 10, line 2, it is believed that the phrase, "the client packet is forwarded to the lower layer is stripped" should state -- the client packet is forwarded to the lower layer, is stripped --.

Appropriate corrections are required.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 13-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 13,

Claim 13 is a single means claim. A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. *In re Hyatt*, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983). See MPEP Section 2164.08(a).

Regarding claim 14,

The phrase "Computer program product" does not have clear support of what computer program product has been disclosed as.

Regarding claim 15,

The phrase "Computer readable medium" does not have clear support of what computer readable medium has been positively disclosed as.

#### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 13,

The word "means" is preceded by the word(s) "Telecommunication equipment comprising" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967). Alternatively, the Applicant may use the phrase "means for" or "step for" modified by functional language and must not be modified by sufficient structure, material, or acts for achieving the specified function. See MPEP, Section 2181.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pub. No. US 2007/0220232 A1 ("Rhoades") in view of Pub. No. US 2004/0052257 A1 ("Abdo").

Regarding claims 1 and 13-15,

Rhoades shows in fig. 8 in the incoming direction, validating IP packets by performing checks ("Determine Protocol"), managing options field by interpreting all the options that a first termination block understands and preserving unaltered all other

options ("Identify Specialised Packets" and "Extract QoS Information"), filtering ("Packet Lifetime Calculations"; para. 250, *if the counter reaches zero then the packet is discarded*), deciding first next layer decision and forwarding (It is inherent that if the equipment is the destination, the packet would be sent to the next layer, such as layer 4 as discussed in para. 196 for further processing or if the equipment is not the destination, the packet would be forwarded as discussed in paras. 109-110), in the outgoing direction, managing TTL by considering a valid packet any IP packet addressed to the equipment and with TTL equal to 0 (It is inherent that any packet with TTL=0 will not be discarded as long as the equipment is the destination), managing source address (It is inherent that the router will manage the source address of a packet), managing options field by interpreting all the options that said first termination block understands and preserving unaltered all other options (already discussed above), fragmenting packets when the packet to be routed has a size greater than a Maximum Transmission Unit (para. 110, *Datagrams which are read from data buffer blocks by SIMD processors may thus be fragmented*).

Rhoades does not disclose managing redirect by checking if the packet that is going to be sent satisfies the following conditions: the IP packet has been received from a same interface over which it is going out, the source address belongs to a sub-network of a next-hop, there is no source route option.

Abdo discloses sending an ICMP redirect message to inform the sending device that the packet with the special destination network should be sent to some other router (para. 130).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention was made to modify the data processing system of Rhoades to provide a method for sending ICMP redirect messages as taught by Abdo. One skilled in the art would have been motivated to make the combination because the router that received the packet does not know how to forward a packet with that address, which is outside of the expected address range of the address realm (Abdo, para. 130).

***Allowable Subject Matter***

8. Claims 2-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 7, 8, 11 and 12 are allowed.

10. Claims 9 and 10 would be allowed if rewritten to overcome objections set forth in this Office action.

***Response to Arguments***

11. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Khosravi (US2003/0039245A1) teaches IP packet forwarding across directly connected forwarding elements.

Guo (US2003/0039246A1) teaches IP/MPLS based transport scheme in 3G radio access networks.

Ku (US2002/0085567A1) teaches transporting data configured according to multiple different formats.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Sol whose telephone number is (571) 272-5949. The examiner can normally be reached on M-F 7:30am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Application/Control Number:  
10/695,836  
Art Unit: 2619

Page 8

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
12/7/07  
WING CHAN  
SUPERVISORY PATENT EXAMINER

AMS

12/7/2007